This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A magnetic head comprising:

a write head portion including a first magnetic pole and a second magnetic pole;

an induction coil being disposed at least in part between said first and second magnetic poles;

an electrical lead of said induction coil having an electrical lead thickness and being disposed in a layer of the magnetic head;

a heat sink being disposed within said layer and being coplanar within the magnetic head with said electrical lead of said coil, said heat sink having a heat sink thickness that is equal to said electrical lead thickness.

2. (original): A magnetic head as described in claim 1 wherein said electrical lead is comprised of copper and said heat sink is comprised of copper.

3. (currently amended): A magnetic head as described in claim 1 wherein said heat sink is disposed at least in part directly upon said second magnetic pole.

4. (original): A magnetic head as described in claim 1 wherein said electrical lead is fabricated upon an insulation layer that is disposed in part above said second magnetic pole, and wherein said heat sink is fabricated upon said insulation layer above said second magnetic pole.

5. (original): A magnetic head as described in claim 4 wherein said heat sink includes a first substantial portion that is disposed above said second magnetic pole, and another substantial portion that is disposed away from said second magnetic pole.

6. (original): A magnetic head as described in claim 5 wherein said heat sink is disposed away from an air bearing surface of the magnetic head.

7. (original): A magnetic head as described in claim 1 further including a second heat sink, and wherein said heat sink and said second heat sink are thermally interconnected by a heat sink interconnect member.

8. (original): A magnetic head as described in claim 7 wherein said second heat sink is disposed below said first magnetic pole.

9. (original): A magnetic head as described in claim 8 wherein said heat sink is thermally interconnected through an interconnect member with a slider body portion of the magnetic head.

10. (original): A magnetic head as described in claim 8 wherein said heat sink is thermally interconnected with said second heat sink through an interconnect member, and said second heat sink is thermally interconnected with said slider body through a second interconnect member.

11. (original): A magnetic head as described in claim 1 wherein said magnetic head is a longitudinal head.

12. (original): A magnetic head as described in claim 1 wherein said magnetic head is a perpendicular magnetic head.

13. (withdrawn): A method for fabricating a magnetic head, comprising:

fabricating a first magnetic pole;

fabricating a second magnetic pole;

fabricating an induction coil, at least in part, between said first magnetic pole and said second magnetic pole;

fabricating an electrical lead to said induction coil;

fabricating a heat sink member in the same fabrication step in which said electrical lead is fabricated.

14. (withdrawn): A method for fabricating a magnetic head as described in claim 13, comprising: fabricating said heat sink in a location above said second magnetic pole.

15. (withdrawn): A method for fabricating a magnetic head as described in claim 13 wherein said electrical lead and said heat sink are fabricated in a photolithographic process.

16. (withdrawn): A method for fabricating a magnetic head as described in claim 15 wherein said photolithographic process includes the use of a mask for forming an electrical lead electroplating trench, and said mask also includes an opening for forming a heat sink trench for electroplating said heat sink therewithin.

17. (withdrawn): A method for fabricating a magnetic head as described in claim 13 wherein said heat sink includes a first portion that is disposed above said second magnetic pole and a second portion that is disposed away from said second magnetic pole.

18. (withdrawn): A method for fabricating a magnetic head as described in claim 13, including the step of fabricating a second heat sink that is disposed below said first magnetic pole.

19. (withdrawn): A method for fabricating a magnetic head as described in claim 18, including the step of fabricating a thermal interconnect member between said first heat sink and said second heat sink.

20. (withdrawn): A method for fabricating a magnetic head as described in claim 19, including the further step of fabricating a thermal interconnect member between said second heat sink and a slider body portion of the magnetic head.

21. (currently amended): A hard disk drive, comprising:

at least one hard disk being adapted for rotary motion upon a disk drive;

at least one slider device having a slider body portion being adapted to fly over said hard disk;

a magnetic head being formed on said slider body for writing data to said hard disk, said magnetic head including:

a write head portion including a first magnetic pole and a second magnetic pole;

an induction coil being disposed at least in part between said first and second magnetic poles;

an electrical lead of said induction coil having an electrical lead thickness and being disposed in a layer of the magnetic head;

a heat sink being disposed within said layer and being coplanar within the magnetic head with said electrical lead of said coil, said heat sink having heat sink thickness that is equal to said electrical lead thickness.

22. (original): A hard disk drive as described in claim 21 wherein said heat sink is disposed at least in part upon said second magnetic pole.

23. (currently amended): A hard disk drive as described in claim 21 wherein said electrical lead is fabricated directly upon an insulation layer that is disposed in part above said second magnetic pole, and wherein said heat sink is fabricated upon said insulation layer above said second magnetic pole.

24. (original): A hard disk drive as described in claim 21 further including a second heat sink, and wherein said heat sink and said second heat sink are thermally interconnected by a heat sink interconnect member.

25. (original): A hard disk drive as described in claim 24 wherein said second heat sink is disposed below said first magnetic pole.

26. (original): A hard disk drive as described in claim 25 wherein said heat sink is thermally interconnected through an interconnect member with a slider body portion of the magnetic head.

27. (original): A hard disk drive as described in claim 25 wherein said heat sink is thermally interconnected with said second heat sink through an interconnect member, and said second heat sink is thermally interconnected with said slider body through a second interconnect member.